



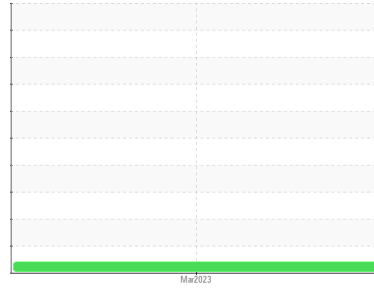
PROBLEM SUMMARY

Sample Rating Trend

VISCOSITY

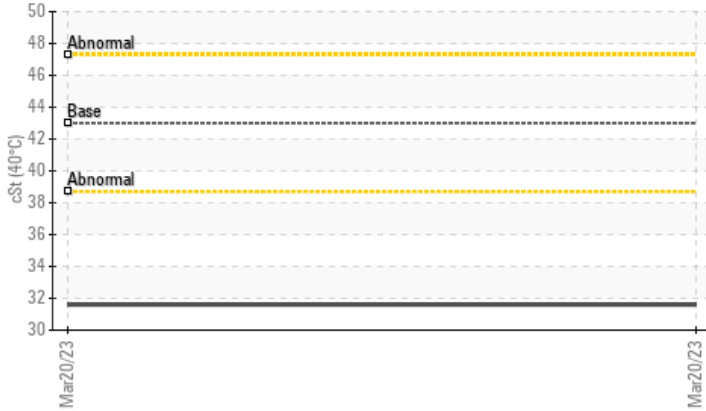


Area
[4501182536]
 Machine Id
TRANE SYSTEM A
 Component
Screw Compressor
 Fluid
NU-CALGON ZEROL 200TD (7 GAL)



COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| | | | | | | |
|---------------|-----|---------------|------|-----------------|-----|-----|
| Sample Status | | | | ABNORMAL | --- | --- |
| Visc @ 40°C | cSt | ASTM D7279(m) | 43.0 | ▲ 31.6 | --- | --- |

Customer Id: CIMTOR
 Sample No.: WC0778487
 Lab Number: 02546951
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Bill Quesnel CLS,OMA II,MLA-III,LLA-I +1
 (289)291-4641 x4641
Bill.Quesnel@wearcheck.com

To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

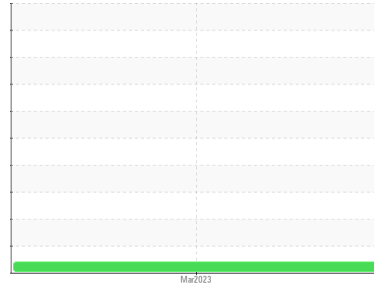


OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Area
[4501182536]
 Machine Id
TRANE SYSTEM A
 Component
Screw Compressor
 Fluid
NU-CALGON ZEROL 200TD (7 GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within ISO 32 range, indicating mixing with the refrigerant. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info | | WC0778487 | --- | --- |
| Sample Date | Client Info | | 20 Mar 2023 | --- | --- |
| Machine Age | hrs | Client Info | 23173 | --- | --- |
| Oil Age | hrs | Client Info | 6000 | --- | --- |
| Oil Changed | Client Info | | Not Changed | --- | --- |
| Sample Status | | | ABNORMAL | --- | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|-------------|-------------------|----------|----------|----------|
| PQ | ASTM D8184* | | 0 | --- | --- |
| Iron | ppm | ASTM D5185(m) >60 | 7 | --- | --- |
| Chromium | ppm | ASTM D5185(m) >4 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185(m) | 0 | --- | --- |
| Titanium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Silver | ppm | ASTM D5185(m) | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185(m) >5 | 0 | --- | --- |
| Lead | ppm | ASTM D5185(m) >10 | 0 | --- | --- |
| Copper | ppm | ASTM D5185(m) >30 | 1 | --- | --- |
| Tin | ppm | ASTM D5185(m) >15 | 1 | --- | --- |
| Antimony | ppm | ASTM D5185(m) | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Beryllium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Cadmium | ppm | ASTM D5185(m) | 0 | --- | --- |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|---------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) | <1 | --- | --- |
| Barium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) | 0 | --- | --- |
| Manganese | ppm | ASTM D5185(m) | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Calcium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) | 751 | --- | --- |
| Zinc | ppm | ASTM D5185(m) | <1 | --- | --- |
| Sulfur | ppm | ASTM D5185(m) | 121 | --- | --- |
| Lithium | ppm | ASTM D5185(m) | <1 | --- | --- |

CONTAMINANTS

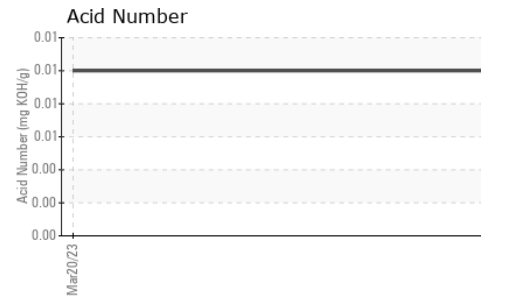
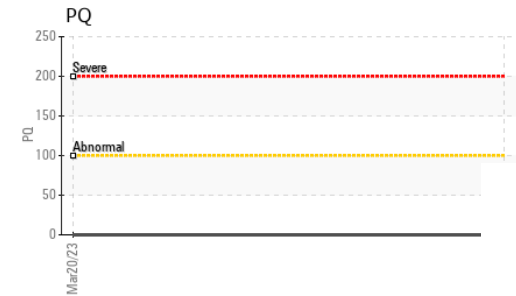
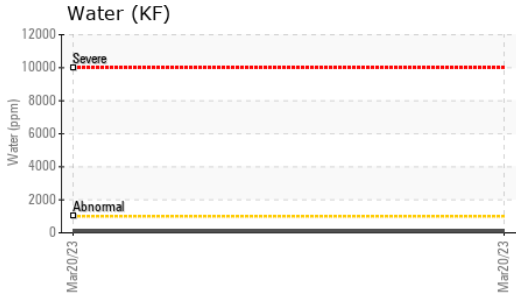
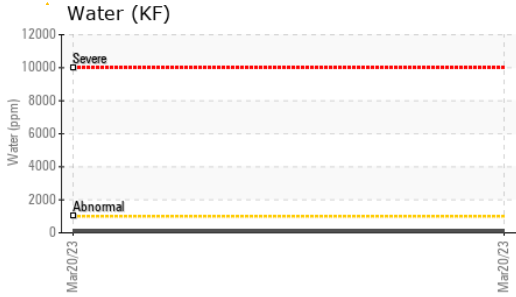
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >50 | 4 | --- | --- |
| Sodium | ppm | ASTM D5185(m) | 0 | --- | --- |
| Potassium | ppm | ASTM D5185(m) >20 | <1 | --- | --- |
| Water | % | ASTM D6304* >0.1 | 0.009 | --- | --- |
| ppm Water | ppm | ASTM D6304* >1000 | 94.3 | --- | --- |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* 0.0 | 0.01 | --- | --- |





OIL ANALYSIS REPORT



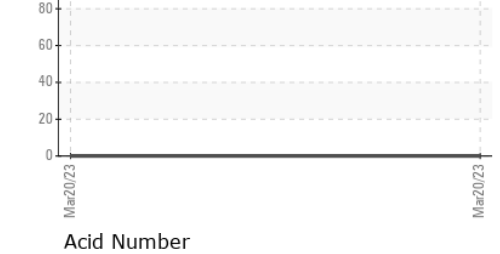
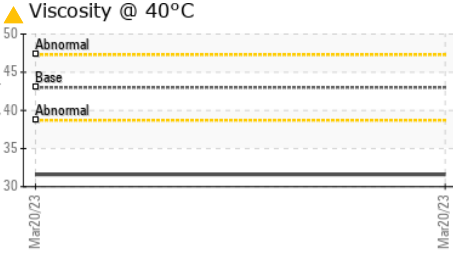
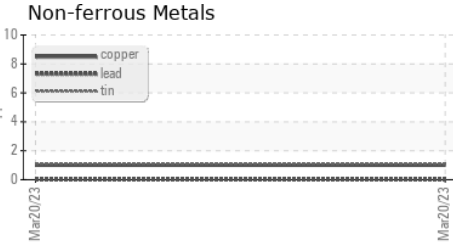
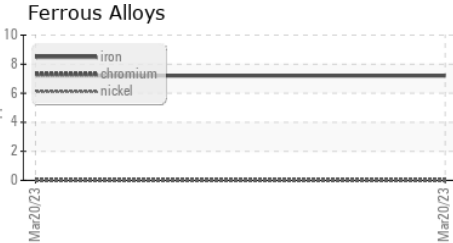
| VISUAL | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|----------|----------|-----|
| White Metal | scalar | Visual* | NONE | NONE | --- | --- |
| Yellow Metal | scalar | Visual* | NONE | NONE | --- | --- |
| Precipitate | scalar | Visual* | NONE | NONE | --- | --- |
| Silt | scalar | Visual* | NONE | NONE | --- | --- |
| Debris | scalar | Visual* | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | Visual* | NONE | NONE | --- | --- |
| Appearance | scalar | Visual* | NORML | NORML | --- | --- |
| Odor | scalar | Visual* | NORML | NORML | --- | --- |
| Emulsified Water | scalar | Visual* | >0.1 | .2% | --- | --- |
| Free Water | scalar | Visual* | | NEG | --- | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 | |
|------------------|--------|---------------|---------|----------|----------|-----|
| Visc @ 40°C | cSt | ASTM D7279(m) | 43.0 | ▲ 31.6 | --- | --- |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

| | | | | | |
|--------|--|--|---|----------|----------|
| Color | | |  | no image | no image |
| Bottom | | |  | no image | no image |

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0778487 **Received** : 22 Mar 2023
Lab Number : 02546951 **Diagnosed** : 27 Mar 2023
Unique Number : 5551961 **Diagnostician** : Bill Quesnel
Test Package : IND 2 (Additional Tests: KF)

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 1551 Corporate Drive
 Burlington, ON
 CA L7L 6M3
 Contact: Roberto Stillisano
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 T: (416)886-9921
 F: (416)465-8815

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.